Drugs for Fibromyalgia

Key Questions and Inclusion Criteria

Key Questions

1. For adults with fibromyalgia, what is the comparative effectiveness/efficacy of included interventions?
    a. When used as monotherapy?
    b. When used as adjunctive therapy?
2. For adults with fibromyalgia, what are the comparative harms of included interventions?
    a. When used as monotherapy?
    b. When used as adjunctive therapy?
3. Are there subgroups of patients based on demographics (age, racial or ethnic groups, and gender), socioeconomic status, other medications, or co-morbidities for which any included drugs are more effective or associated with fewer harms?
    a. When used as monotherapy?
    b. When used as adjunctive therapy?

Inclusion Criteria

Population(s)

Adult outpatient populations with fibromyalgia or fibromyalgia syndrome as diagnosed by the 1990 or 2010 American College of Rheumatology (ACR) diagnostic criteria for fibromyalgia[1-2]: (1) widespread pain (axial plus upper and lower segment plus left- and right-sided pain) for more than 3 months in combination with or without (2) pain on digital palpation at 11 of 18 tender point sites.

Interventions:

- Antiepileptic drugs
- Benzodiazepines
- Dopamine agonists
- 5-HT_2 receptor antagonists (5-HT_2 antagonists)
- Growth hormone
- Non-steroidal anti-inflammatory drugs (NSAIDs)
- Noradrenergic and specific serotonergic reuptake inhibitors (NaSSAs)
- Norepinephrine and dopamine reuptake inhibitors (NDRIs)
- Opioid analgesics
- Opioid receptor antagonist
- Sedative Hypnotics
- Selective estrogen receptor modulators (SERMs)
- Selective serotonin reuptake inhibitors (SSRIs)
- Serotonin norepinephrine reuptake inhibitors (SNRIs)
- Selective serotonin and norepinephrine reuptake inhibitor (SSNRIs)
- Skeletal muscle relaxants (SMRs)
- Synthetic cannabinoids

- Tricyclic and tetracyclic antidepressants (TCAs)

Comparators

- Direct comparisons of included drugs in head-to-head trials will be preferred.
- For indirect comparisons, only placebo-controlled trials will be considered.

Effectiveness/Efficacy Outcomes

- Pain – primary outcome, including tender points
- Functional capacity (e.g., work productivity, days missed from work, etc.)
- Health-related Quality of life
- Response (e.g., proportion achieving, speed of, duration of, etc.)
- Fatigue, depressiveness, sleep, global status

Harms

- Overall adverse events
- Withdrawals due to adverse events
- Specific adverse events (e.g., hepatic, renal, hematologic, dermatologic, sedation/drowsiness, and other neurologic side effects)

Study designs

1. For effectiveness, controlled clinical trials and good-quality systematic reviews.
2. For harms, in addition to controlled clinical trials, observational studies will be included.
    a. Observational studies will be defined as comparative cohort and case-control studies with a well defined fibromyalgia population
    b. Uncontrolled non-randomized controlled trials will be included only if the duration of follow-up is 1 year or longer, and if serious harms are reported. A serious harm is one that results in long-term health effects, or mortality.

References

1. Wolfe F, Smythe HA, Yunus MB, Bennett RM, Bombardier C, Goldenberg DL, et al. The American College of Rheumatology 1990 criteria for the classification of fibromyalgia: report of the multicenter criteria committee. Arthritis Rheum 1990;33:160---72.
2. Wolfe F, Clauw D, Fitzcharles MA, Goldenberg D, Katz RS, Mease P, et al. The American College of Rheumatology Preliminary Diagnostic Criteria for Fibromyalgia and Measurement of Symptom Severity. Arthritis Care Res. [Epub ahead of print] February 23, 2010.